

REQUEST FOR ACCESS TO AN ABANDONED APPLICATION UNDER 37 CFR 1.14

Bring completed form to:

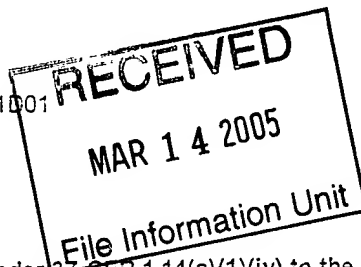
File Information Unit

Crystal Plaza Three, Room 1D01

2021 South Clark Place

Arlington, VA

Telephone: (703) 308-2733



In re Application of

Application Number

Filed

08/147,912

11/3/93

Paper No.

#46

I hereby request access under 37 CFR 1.14(a)(1)(iv) to the application file record of the above-identified ABANDONED application, which is identified in, or to which a benefit is claimed, in the following document (as shown in the attachment):

United States Patent Application Publication No. 5,677,177, page, _____ line _____.

United States Patent Number _____, column _____, line, _____ or

WIPO Pub. No. _____, page _____, line _____.

Related Information about Access to Pending Applications (37 CFR 1.14):

Direct access to pending applications is not available to the public but copies may be available and may be purchased from the Office of Public Records upon payment of the appropriate fee (37 CFR 1.19(b)), as follows:

For published applications that are still pending, a member of the public may obtain a copy of:

- the file contents;
- the pending application as originally filed; or
- any document in the file of the pending application.

For unpublished applications that are still pending:

- (1) If the benefit of the pending application is claimed under 35 U.S.C. 119(e), 120, 121, or 365 in another application that has: (a) issued as a U.S. patent, or (b) published as a statutory invention registration, a U.S. patent application publication, or an international patent application publication in accordance with PCT Article 21(2), a member of the public may obtain a copy of:
 - the file contents;
 - the pending application as originally filed; or
 - any document in the file of the pending application.
- (2) If the application is incorporated by reference or otherwise identified in a U.S. patent, a statutory invention registration, a U.S. patent application publication, or an international patent application publication in accordance with PCT Article 21(2), a member of the public may obtain a copy of:
 - the pending application as originally filed.

Arieb Tesfey
 Signature
Arieb Tesfey
 Typed or printed name

3/14/05
 Date

FOR PTO USE ONLY

RECEIVED

Approved by: _____

MAR 14 2005

Unit: _____

File Information Unit

Registration Number, if applicable

703-486-1120

Telephone Number

This collection of information is required by 37 CFR 1.14. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. BRING TO: File Information Unit, Crystal Plaza Three, Room 1D01, 2021 South Clark Place, Arlington, VA.



US005677177A

United States Patent [19]

Wahl et al.

[11] **Patent Number:** 5,677,177[45] **Date of Patent:** Oct. 14, 1997

[54] **FLP-MEDIATED GENE MODIFICATION IN MAMMALIAN CELLS, AND COMPOSITIONS AND CELLS USEFUL THEREFOR**

4,997,757 3/1991 Schiestl 435/172.1

OTHER PUBLICATIONS

[75] **Inventors:** Geoffrey M. Wahl; Stephen V. O'Gorman, both of San Diego, Calif.

Golic et al. 1989. Cell. 59, 499-509.

[73] **Assignee:** The Salk Institute for Biological Studies, La Jolla, Calif.

Palmiter, R.D. 1986 Ann. Rev. Genet. 20, 465-499.

[21] **Appl. No.:** 486,409

Houdebine, L.-M. 1994. J. Biotechnol. 34, 269-287.

[22] **Filed:** Jun. 7, 1995

Wall, R.J. 1996. Theriogenology 45, 57-68.

Senecoff et al. 1985. Proc. Natl. Acad. Sci. USA 82, 7270-7274.

Related U.S. Application Data

[62] Division of Ser. No. ~~147,912~~, Nov. 3, 1993, which is a continuation of Ser. No. 666,252, Mar. 8, 1991, abandoned.

Primary Examiner—Christopher S. F. Low
Attorney, Agent, or Firm—Gray Cary Ware & Freidenrich; Stephen E. Reiter

[51] **Int. Cl.⁶** C12N 5/06; C12N 15/09; C12N 15/90

ABSTRACT

[52] **U.S. Cl.** 435/325; 435/172.3; 435/320.1; 435/350; 435/351; 435/352; 435/353; 435/354; 435/363; 435/366; 435/193; 435/197; 435/194; 536/24.2; 536/24.1; 536/23.74; 536/23.1; 935/66; 935/8; 935/22; 514/44; 800/2

A gene activation/inactivation and site-specific integration system has been developed for mammalian cells. The invention system is based on the recombination of transfected sequences by FLP, a recombinase derived from *Saccharomyces*. In several cell lines, FLP has been shown to rapidly and precisely recombine copies of its specific target sequence. For example, a chromosomally integrated, silent β -galactosidase reporter gene was activated for expression by FLP-mediated removal of intervening sequences to generate clones of marked cells. Alternatively, the reverse reaction can be used to target transfected DNA to specific chromosomal sites. These results demonstrate that FLP can be used, for example, to mosaically activate or inactivate transgenes for a variety of therapeutic purposes, as well as for analysis of vertebrate development.

[58] **Field of Search** 800/2; 435/172.1, 435/172.2, 172.3, 240.2, 240.21, 320.1, 350, 351, 352, 353, 354, 363, 193, 197, 194; 514/44; 536/23.1, 23.74, 24.1, 24.2; 935/52, 55, 56, 57, 58, 69, 70, 71, 72, 22, 8

[56] **References Cited**

U.S. PATENT DOCUMENTS

4,959,317 9/1990 Sauer 435/172.3

24 Claims, 3 Drawing Sheets